What is claimed is:

√1 (1.)

A device for inducing local bone or cartilage formation comprising:

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dsteogenic protein;

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matrix derived from non-synthetic, non-polymeric material; and,

4

binding agent.

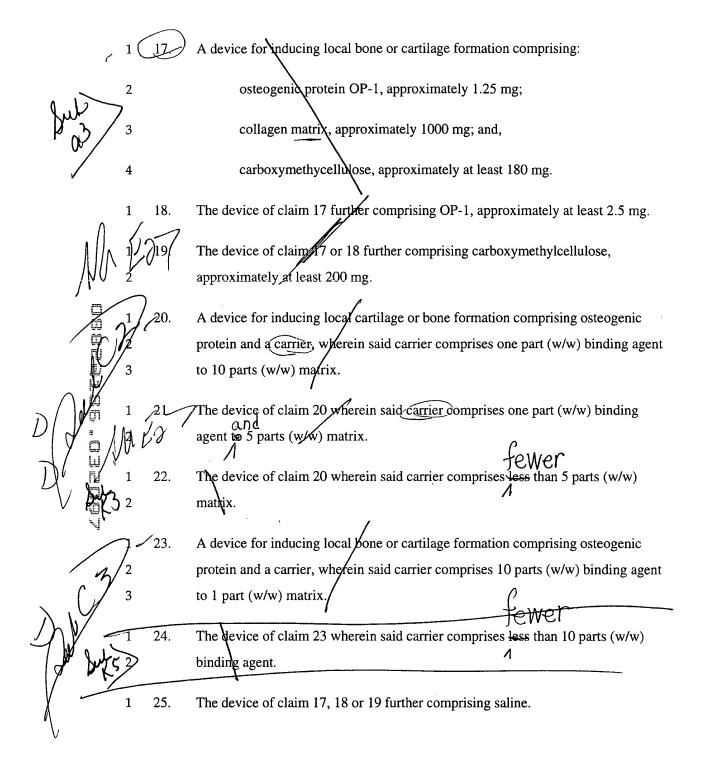
- 2.
 3
- The device of claim 1 wherein said osteogenic protein is selected from the group consisting of: OP1, OP2, OP3, BMP2, BMP3, BMP4, BMP5, BMP6, BM9,
- 3 BMP10, BMP11, BMP12, BMP15, BMP16, DPP, Vg1, Vgr, 60A protein,
- GDF-1, GDF3, GDF5, GDF6, GDF7, GDF8, GDF9, GDF10, GDF11, and amino
- acid sequence variants of each of the foregoing.
- 3.
 2

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- 3. The device of claim 1 wherein said osteogenic protein is selected from the group consisting of: OP1, OP2, BMP2, BMP4, BMP5, BMP6, and amino acid sequence
- wariants of each of the foregoing.
- 1 4. The device of claim 1 wherein aid osteogenic protein comprisES an amino acid
- sequence having at least 70% homology with the C-terminal 102-106 amino acids,
- including the conserved seven cysteine domain, of human OP1.
- 1 5. The device of claim 1 wherein said osteogenic protein is OP-1.
 - 6. The device of claim 1 wherein said device comprises at least two different
- 2 osteogenic proteins.



- 7. The device of claim 1 wherein said matrix is selected from the group consisting of: collagen, demineralized bone, apatites, hydroxyapatites, tricalcium phosphates, and admixtures thereof.
- 1 8. The device of claim 1 wherein said matrix is collagen.
- 1 9. The device of claim 1 wherein said device comprises at least two different matrix 2 materials.
- 1 10. The device of claim 1 wherein said binding agent is selected from the group
 2 consisting of mannitol dextrans, white petrolatum, mannitol/dextran combinations,
 3 mannitol/white petrolatum combinations, sesame oil, alkyl celluloses, and
 4 admixtures thereof.
- 1 11. The device of claim 1 wherein said binding agent is selected from the group consisting of alkylcelluloses.
- 1 12. The device of claim 1 wherein said binding agent is selected from the group
 2 consisting of methylcellulose, methylhydroxyethylcellulose, hydroxyethylcellulose,
 3 hydroxypropylmethylcellulose, carboxymethylcellulose, sodium
 4 carboxymethylcellulose, hydroxyalkylcelluloses, and admixtures thereof.
- 1 13. The device of claim 1 wherein said binding agent is carboxymethylcellulose or the sodium salt thereof.
- 1 14. The device of claim 1 wherein said device comprises at least two different binding 2 agents.
- 1 15. The device of claim 1 further comprising a wetting agent.
- 1 16. The device of claim 15 wherein said wetting agent is saline.



0 1	1 /	/26.	A method for inducing local bone or cartilage formation for repair of bone,
DUH >	2		cartilage or osteochondral defects, comprising the step of:
	3		providing the device of claim 1, 17, 20 or 23 to a defect site.
	1	27.	The method of claim 26 wherein bone formation is endoehondral bone formation.
	1	28.	The method of claim 26 wherein cartilage formation is articular cartilage
	2		formation.
	1	29.	The method of claim 26 wherein said defect site is selected from the group
	2		consisting of: critical size defect, non-critical size defect, segmental nonunion
Ooora Lac	3		defect, nonunion fracture, fracture, osteochondral defect, and subchondral defect.
nj	1	30.	The method of claim 26 wherein the volume of osteogenic device provided to the
	$\sqrt{2}$		defect site is sufficient to fill the defect site
8	1/	, 31.	A device for inducing local bone or cartilage formation comprising:
O W	2		osteogenic protein OP-1;
	3/		collagen matrix; and
(3)	4		carboxymethylcellulose.
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